

**PROJECT DESCRIPTION**

GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF US 1 (BELAIR ROAD) AND MD 43 RAMP 'B' /DUNFIELD ROAD IN BALTIMORE COUNTY, MARYLAND. US 1 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION OPERATES IN A NEMA SEVEN-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE US 1 APPROACHES OPERATING CONCURRENTLY AND THE DUNFIELD ROAD/MD 43 RAMP "B" APPROACHES OPERATING CONCURRENTLY.

EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING EXISTS ON NORTHBOUND US 1, DUNFIELD ROAD AND MD 43 RAMP 'B' APPROACHES

A RIGHT-TURN OVERLAP EXISTS FOR THE DUNFIELD ROAD APPROACH.

THE PEDESTRIAN PHASE ACROSS THE NORTH LEG WILL REMAIN UNCHANGED.

TYPICAL MESSAGES FOR ACCESSIBLE PED SIGNALS

US 1 (BELAIR ROAD) AND DUNFIELD ROAD - NORTH LEG

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS BELAIR AT DUNFIELD. WAIT." \*

WALK: RAPID TICK

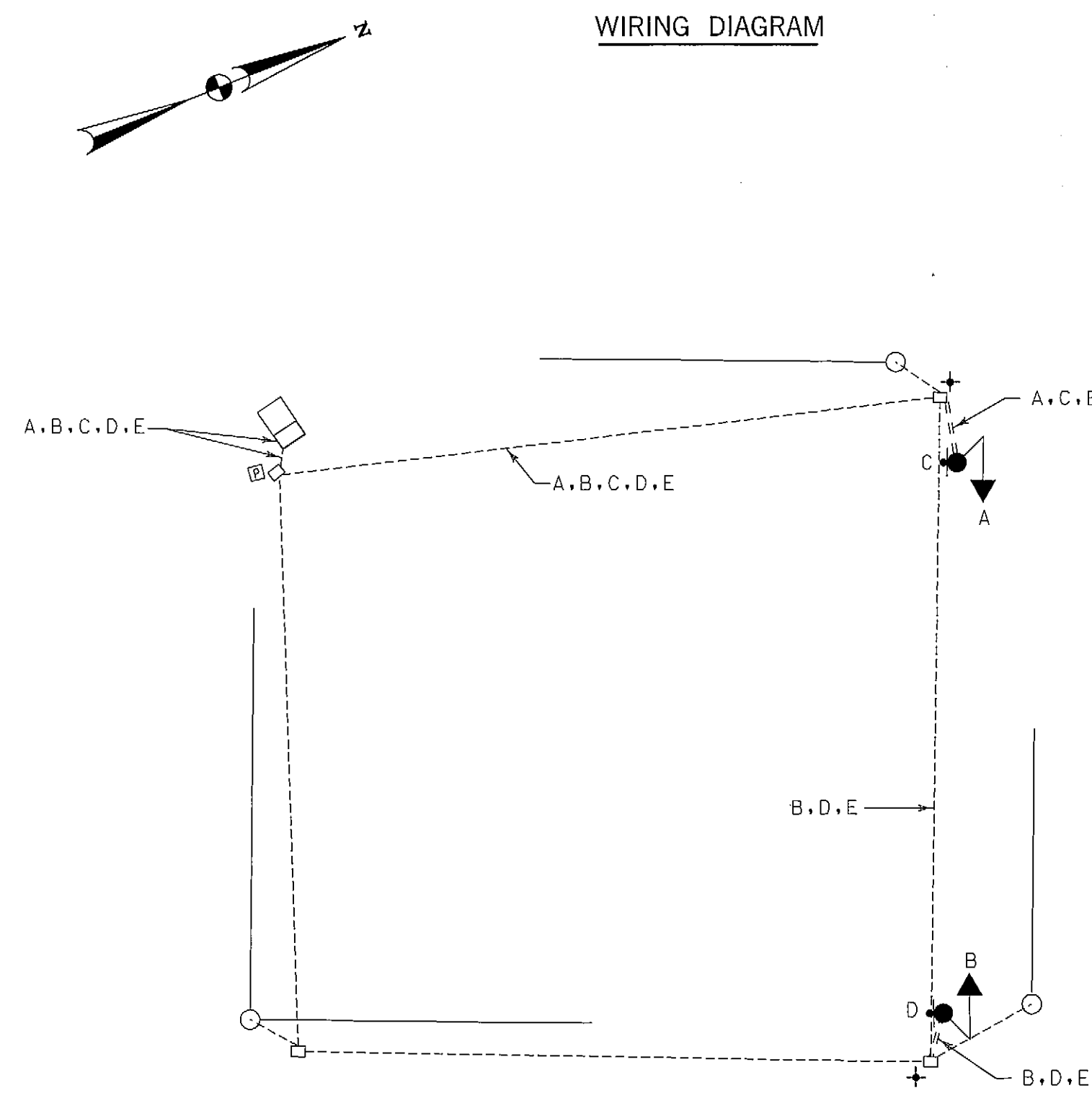
\* MESSAGE USED IF DISTANCE FROM NEAREST PUSHBUTTON FOR PERPENDICULAR CROSSING IS < 10'

\*\* MESSAGE USED IF CROSSWALK DIVERGES FROM OR CONVERGES WITH PARALLEL TRAFFIC

NOTE: MESSAGES FOR INTERSECTION CONFIGURATIONS, VARYING FROM THE ABOVE ARE TO BE APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.

CONTROLLER REQUIREMENTS

THE EXISTING BASE MOUNTED CABINET AND CONTROLLER WILL BE USED. THE CONTROLLER WILL BE RETROFITTED TO OPERATE APS EQUIPMENT.



**WIRING KEY**

A } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

B } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

C } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

D } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

E } STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)

+ - 3/4 IN. X 10 FT. GROUND ROD



**EQUIPMENT LIST "A"**

ITEM NO.	QUANTITY	DESCRIPTION
9571	34.875 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF :
	- 2 EACH	R10-3(1) SIGN (9 IN. x 15 IN.) TO READ "PUSHBUTTON TO CROSS BELAIR ROAD"
	- 4 EACH	W11-2 BLK/FY SIGN (30 IN. x 30 IN.)
	- 2 EACH	W16-7pL BLK/FY SIGN (24IN. x 12 IN.)
	- 2 EACH	W16-7pR BLK/FY SIGN (24IN. x 12 IN.)

**EQUIPMENT LIST "C"**

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

ALL REMOVED SIGNAL MATERIALS SHALL BECOME PROPERTY OF THE CONTRACTOR

**MAINTENANCE OF TRAFFIC**

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT. ADDITIONAL TRAFFIC CONTROL STANDARDS MAY BE USED AS DIRECTED BY THE ENGINEER.

STANDARD NO. MD-104.03-03 (LEFT LANE CLOSURE)	STANDARD NO. MD-104.03-09 (INTERSECTION FAR LEFT LANE CLOSURE)
STANDARD NO. MD-104.03-05 (RIGHT LANE CLOSURE)	STANDARD NO. MD-104.03-11 (INTERSECTION FAR RIGHT LANE CLOSURE)

**PROJECT CONTACTS**

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MS. ERIN KUHN ASSISTANT DISTRICT ENGINEER - TRAFFIC PHONE: (410) 229-2381	MR. ROBERT SYNDER ASSISTANT CHIEF, TRAFFIC OPERATIONS DIVISION PHONE: (410) 787-7631
MR. ANDRE FUTRELL ASSISTANT DISTRICT ENGINEER - MAINTENANCE PHONE: (410) 229-2361	MR. RICHARD L. DAFF, SR. CHIEF, TRAFFIC OPERATIONS DIVISION PHONE: (410) 787-7630
MR. MIKE PASQUARIELLO DISTRICT UTILITY ENGINEER PHONE: (410) 229-2341	

**PHASE CHART**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE 1 + 6	G	G	G	FLY	FLY	R	R	R	R	R	R	R	R	R	DW	DW
1 + 6 CHANGE	G	G	G	FLY	FLY	R	R	R	R	R	R	R	R	R	DW	DW
PHASE 2 + 6	G	G	G	FLY	FLY	G	G	G	R	R	R	R	R	R	DW	DW
2 + 6 CHANGE	Y	Y	Y	FLY	FLY	Y	Y	Y	R	R	R	R	R	R	DW	DW
PHASE 3 AND 7	R	R	R	FLY	FLY	R	R	R	G	G	R	G	G	R	DW	DW
3 AND 7 CHANGE	R	R	R	FLY	FLY	R	R	R	G	G	R	G	G	R	DW	DW
PHASE 3 + 7 MAY CHANGE TO PHASE 3 + 8, PHASE 4 + 7 OR PHASE 4 + 8																
PHASE 3 AND 8	R	R	R	FLY	FLY	R	R	R	G	G	R	R	R	R	DW	DW
3 AND 8 CHANGE	R	R	R	FLY	FLY	R	R	R	G	G	R	R	R	R	DW	DW
PHASE 4 AND 7	R	R	R	FLY	FLY	R	R	R	R	R	R	G	G	G	DW	DW
4 AND 7 CHANGE	R	R	R	FLY	FLY	R	R	R	R	R	R	G	G	G	DW	DW
PHASE 4 AND 8	R	R	R	FLY	FLY	R	R	R	G	G	G	G	G	G	DW	DW
4 AND 8 CHANGE	R	R	R	FLY	FLY	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW
PHASE 4 + 8 ALT	R	R	R	FLY	FLY	R	R	R	G	G	G	G	G	G	WK	WK
PED CLEARANCE	R	R	R	FLY	FLY	R	R	R	G	G	G	G	G	G	FLDW	FLDW
4 + 8 ALT CHANGE	R	R	R	FLY	FLY	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLY	FLY	FLY	FLY	FLR	FLR	FLR	FLR	FLR	FLR	DARK	DARK

**EQUIPMENT LIST "B"**

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
2001	2 C.Y.	CLASS 2 EXCAVATION
2002	2 C.Y.	TEST PIT EXCAVATION
5001	150 L.F.	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH
5005	275 L.F.	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
5006	23 L.F.	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
6001	130 L.F.	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	410 S.F.	5 INCH CONCRETE SIDEWALK
8002	1 EACH	2-WIRE CENTRAL CONTROL UNIT
8007	2 EACH	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8008	2 EACH	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8010	2 EACH	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
8011	52 EACH	LED SIGNAL HEAD MODULES (ANY SIZE)
8013	1 EACH	REMOVE & DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
8018	25 L.F.	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
8019	65 S.F.	DETECTABLE WARNING SURFACES
8023	375 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8025	375 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8031	48.5 L.F.	WOOD SIGN SUPPORTS UP TO 4 X 6
8033	355 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8034	36 S.F.	INSTALL GROUND MOUNT SIGNS

TOD NO: XX427-23  
SHA NO: BA171A55/B55  
US 1; MD 43 ramp B/Dunfield Road

**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
US 1 (BELAIR ROAD) @ MD 43 RAMP 'B' /DUNFIELD ROAD  
PERRY HALL, MARYLAND

**GENERAL INFORMATION SHEET**

SCALE NONE ADVERTISED DATE 09/06/2011 CONTRACT NO. XX4275185

DESIGNED BY L. WAESCHE COUNTY Baltimore  
DRAWN BY L. WAESCHE LOGMILE 030001824  
CHECKED BY N. LEARY TMS NO. K829  
F.A.P. NO. TOD NO.

TS NO. 117J DRAWING TSP-4 OF 4 SHEET NO. 4 OF 4